

Title (en)  
RINSING AGENTS FOR USE IN MECHANICAL DISH WASHING

Publication  
**EP 0197434 B1 19890719 (DE)**

Application  
**EP 86104164 A 19860326**

Priority  
• DE 3512120 A 19850403  
• DE 3530303 A 19850824

Abstract (en)  
[origin: EP0197434A2] 1. The use of terminated alkyl polyethylene glycol ethers corresponding to the following general formula see diagramm : EP0197434,P7,F1 in which R\*\*1 is a linear or branched alkyl radical or alkenyl radical containing from 8 to 18 carbon atoms, R\*\*2 is an alkyl radical containing 4 to 8 carbon atoms and n is a number of from 7 to 16, in admixture with terminated alkyl polyethylene glycol ethers corresponding to the following formula see diagramm : EP0197434,P7,F2 in which R\*\*1 and R\*\*2 have the meanings defined for formula I and m is n a number from 17 to 23, the cloud point of the mixture of ethers corresponding to formulae I and II being no higher than 45 degrees C, as a low-foaming nonionic surfactant mixture in rinse aids for domestic and institutional dishwashing machines.

IPC 1-7  
**C11D 1/72**

IPC 8 full level  
**C11D 1/72** (2006.01)

CPC (source: EP)  
**C11D 1/721** (2013.01); **C11D 3/0026** (2013.01)

Cited by  
CN113046192A; US4988452A; EP0389157A3; US4859358A; US5707956A; EP0343503A1; US8276756B2; US8697624B2; US8905236B2; US9133329B2; DE4323252A1; US5759987A; US5130043A; EP0326795A3; US7871971B1; US6962898B2; US7514395B2; US9150782B2; WO2005097957A1; WO9516015A1; WO8911525A1; WO0192450A1; WO2016061025A1; US10526479B2; WO9502668A1; WO9416045A1; WO2017180883A1; US10240114B2; WO2019213347A1; US11193092B2; WO2016061026A1; US10513588B2; US10808210B2; US11168289B2; WO2016061069A2; US9670437B2; US10844183B2; US10913832B2; WO2019212722A1; US11352468B2; US11453754B2; WO2023150317A1; US7462588B2; WO2015054067A1; US9670440B2; US10202227B2; WO2019212723A1; US11407866B2; WO2005075621A1; WO2011094690A1; WO2016160116A1; US10815346B2; EP3845583A2; US11459433B2

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)  
**EP 0197434 A2 19861015; EP 0197434 A3 19870318; EP 0197434 B1 19890719; DE 3664480 D1 19890824**

DOCDB simple family (application)  
**EP 86104164 A 19860326; DE 3664480 T 19860326**